

## Freshwater Fisheries Monthly Report – March 2023

### Freshwater Fisheries - Stock Assessment

**Potomac River Walleye** - Walleye brood collection was successfully completed on the upper Potomac River. A total of 11 females and 22 males were transported to the department's Joseph Manning Hatchery for use in juvenile walleye and juvenile saugeye production. The largest walleye was 26 inches. Roughly 30% of the walleye collected were within the 15-20 inch slot limit. Walleye greater than 20 inches in length comprised 45 percent of the sample. Anglers have reported catching spent females below Dam 4, indicating that spawning has taken place in the river.



*Adult female walleye from the upper Potomac River*

**Howard County Pond** - Biologists met with staff from Howard County Parks and Recreation to discuss the feasibility of adding substrate to allow boat access to a regional pond. The substrate will allow staff to perform fishery surveys in the pond to assess species presence-absence, relative population sizes, and stock structure.

**Triadelphia Reservoir** - Biologists continue to set hoop nets at Triadelphia Reservoir at 11 to 15 sites spread widely around the waterbody. New nets were received from Miller Net company meeting the design recommendations specified in the Division's Standard Operating Procedure for Impoundment Fishery Monitoring Surveys and are now being used at the reservoir. The nets have detected a few hot spots for white crappie, yellow perch, and white perch during March and these spots tend to be deeper (18 to 23 feet). Other species such as walleye, northern pike, and smallmouth bass have been caught

sporadically. Shallow nets have yielded fewer fish so far but did catch bluegill and common carp.



*Working hoop nets on Triadelphia Reservoir*



*Big White Crappie caught in hoop nets in Triadelphia Reservoir*

## **Freshwater Fisheries - Habitat and Water Quality**

**Environmental Review** - Provided aquatic resource information for the following environmental review projects:

- The Henryton Road bridge restoration project (Howard County). The bridge crosses an unnamed tributary to Patapsco River that supports a brown trout population and may support brook trout in the headwaters. The project will address structural deterioration, increase the load carrying capacity of the bridge, and armor the banks of the stream with riprap. An early version of the design plan was reviewed in 2021, during which concerns were expressed about in-stream work, disturbance to the riparian buffer, and blockages to fish passage. Review of the current version suggested that the initial concerns were not fully addressed. Comments were submitted to request additional information about the proposed dam/pump around approach and to recommend phasing the project to allow passage throughout work activities.
- The Jabez Branch Tributary 3 stream restoration post-project monitoring and adaptive management plan (Anne Arundel County). The stream restoration project (Regenerative Stormwater Conveyance approach) in an unnamed tributary to Jabez Branch will be monitored for at least ten years after construction is completed. The monitoring plan will establish adaptive management actions if success criteria are not achieved. Comments and recommendations were submitted for consideration to the department's Chesapeake and Coastal Service Unit, which is leading the project.
- The Jabez Tributary 3, Phase 2 Regenerative Stormwater Conveyance (RSC) project (Anne Arundel County). The goal of the project is to help address storm flows and increase infiltration. The Freshwater Fisheries and Hatcheries Division has expressed concerns that the approach could negatively impact water quality and stream habitat in this Use III stream.
- An emergency plan to move a gas line across Wolf Den Run (Garrett County). A road that crosses Wolf Den Run near the confluence with the North Branch Potomac River is failing. A plan to move a gas line located at the stream crossing was developed to avoid a gas-related emergency. The project will fully block Wolf Den Run and dig a trench across the stream to place a new gas line. The stream bottom will be restored and flow will be returned after completion of the project. Because of the urgency of the situation, the project was supported as long as project activities are limited in terms of impacted stream length and time of work activities. Comments also requested robust and redundant sediment and erosion control practices and efforts to minimize impacts to the riparian buffer of the stream.
- For a volleyball court to be constructed at the Allegany College of Maryland. Sediment and erosion control measures were addressed during the construction phase.
- An application for a stone revetment to be constructed on the shoreline of Deep Creek Lake. Comments were submitted for time of year restrictions, disturbance from equipment, and material usage.
- A Columbia Gas utility line replacement project. Comments were provided to address sediment and erosion control measures along with soil stabilization after

the project is completed.

- The town of Oakland submitted an application for the replacement of an old sewer line along Wilson Run. Comments were provided regarding equipment disturbance, sediment and erosion control, material storage areas, and site reclamation upon the completion of the project.
- An application from the Maryland Department of Transportation, State Highway Administration for the replacement of bridge superstructure No.110014 that spans the Little Youghiogheny River on MD Route 135. Comments were provided related to equipment disturbance, sediment and erosion control best management practices (BMPs), BMPs for diversions and pump around material storage areas, and site reclamation upon the completion of the project.
- Comments on two Program Open Space properties, one in Garrett County and one in Washington County.

**North Branch Site Visit** - Conducted a site visit to the North Branch Potomac River for a reported mine blowout. Upon arrival, staff could see that Georges Creek was running a shade of orange and continued to discolor the Potomac River further downstream. Maryland Department of the Environment was onsite and the discharge was reported to be a neutral pH and the increased turbidity was a result of overland flow. After several site visits there were no reported fish kills and both waterways cleared.

**Youghiogheny River** - Temperature data were provided to Versar Inc. for analysis of the temperature enhancement releases (TER) that occur on the Youghiogheny River. The coldwater releases from the Deep Creek Hydroelectric Plant provide the river with enough coldwater to support a special catch-and-return trout fishing area that extends from the discharge of the power station to the Sang Run bridge approximately four miles downriver. Stream temperature and trout population data are collected annually to evaluate the efficacy of the TER releases and adjust as necessary to protect the coldwater resources.

**Newtown Pond Habitat** - Collaborated with the Worcester County Department of Parks and Recreation to deploy thirty aquatic habitat structures into Newtown Pond in Worcester County. The structures were made of recycled Christmas trees and concrete blocks.

### **Freshwater Fisheries - Stocking and Population Management**

**Saugeye** - Hatchery staff are reporting positive results from the pilot saugeye-rearing project. Excellent fertilization rates were observed and fry are now beginning to hatch. These fish will be stocked in Piney Reservoir (Garrett County) to provide angling opportunities and aid in the control of panfish densities, primarily abundant juvenile yellow perch.

**Trout Juvenile** - Transferred 60 rainbow trout juveniles from the West Virginia Division of Natural Resources Petersburg Hatchery to Maryland's Oxford Laboratory for fish health testing prior to stocking in Maryland waters. A total of 19,953 healthy rainbow

trout fingerlings were subsequently stocked in the North Branch Potomac River between Westernport and Black Oak within the catch-and-return, all-tackle trout fishing area.

**Trout Stocking** - Regional staff worked with coldwater hatchery staff to stock trout across the state in preparation for opening day of trout season on March 25. Anglers made numerous remarks about the large size and quality of fish.

Southern Region pond stocking of rainbow trout was completed for the season on March 14. Southern Region's only river or stream for trout fishing activity, Severn Run, was stocked prior to the opening day, March 25. One more load of fish will go to Severn Run this season

### **Freshwater Fisheries - Outreach**

Provided customer service information for inquiries regarding:

- Trout stocking in Maryland
- Reporting walleye tags for fish caught on Deep Creek Lake
- Notifying winners of anglers that participated in the Deep Creek Lake walleye tagging study. Anglers who participated in the study were entered to win one of 10 Visa gift cards.
- Potomac River muskie fishing and river conditions.

**Envirothon** - Provided Aquatics training for the Frederick County Envirothon students. Study topics for the Aquatics stations included: fish anatomy, impact of stormwater runoff, invasive species, watersheds, and water quality. Students also get training on Forestry, Soils, Wildlife, and this year's Fifth Issue which is "Adapting to Climate Change."

**Master Naturalist Program**– Provided an Aquatic Ecosystems/Freshwater Fish training for the Maryland Master Naturalist Program hosted at North Point State Park. The aquatic presentation covers different aquatic ecosystems in Maryland, threats to stream ecosystems (i.e. invasive species, land use, stormwater runoff) and the importance of riparian buffers for protection of the resource. A powerpoint presentation on the Fishes of Maryland with focus on fish found in their region was also provided. Participants were able to do hands-on fish identification (with preserved fish samples) and learn to use a key to identify fish family/species.

Southern Region assisted organizers of the "DoitforRoper" benefit Catfish Tournament that was held on the lower Patuxent River. Fishing and Boating Services has supplied support for this activity since they were first approached three years ago. Both Fisheries the department and the organizer see the tournament as a way to educate the public about blue catfish and a fun way to help reduce the population in the Patuxent River. Almost all the blue catfish that are weighed in are not returned to the water.

The Central Region manager provided a PowerPoint presentation to the White Clay Fly Fishers highlighting the Gunpowder Falls tailwater trout fishery and the latest survey results. The 2022 survey incorporated depletion population estimates at established sites

and a float survey using a specialized electrofishing raft that covered nearly 15 miles of river. The program was very well received.

### **Freshwater Fisheries – Fish Health**

Freshwater Fisheries staff recently attended the third Chesapeake Bay Watershed Smallmouth Bass Health Assessment Symposium held at the U.S. Geological Survey Eastern Ecological Science Center. Staff provided an update on the upper Potomac River smallmouth bass fishery and supplemental stocking program. Biologists from neighboring states also provided presentations at the meeting. It was a great opportunity to discuss ongoing region-wide issues concerning smallmouth bass population dynamics and fish health.

### **Freshwater Fisheries - Angler Access**

**Fishery Management Areas (FMAs)** - Continues to perform routine checks and maintenance at various FMAs, including the McCooles, Black Oak and Evitts Creek properties. Staff recently discovered the intake pipe at Evitts Creek Ponds has an obstruction that is limiting flow to the pond. Staff are currently in the process of taking necessary measures to remove the obstruction to restore flow to the pond.

**Signage** - Placed regulation signs in special management areas throughout the state to help inform anglers of fishing regulations for specific management areas.

### **Freshwater Fisheries - Invasive Species**

**Alabama Bass** - Created a short video to post on social media regarding Alabama Bass and the dangers associated with its introduction to neighboring states.

**Blue Catfish** - Attended the upper Chesapeake Youth Environmental Action Summit in Chestertown to help explain the problems with blue catfish to high school students participating in the session.

**Northern Snakehead** - Attended the inter-agency northern snakehead taskforce meeting where states reported on work with northern snakeheads and planned future work.

**Consumption Advisories** - Began work to collect samples that help expand consumption advisories by Maryland Department of Environment for northern snakehead, blue catfish, and flathead catfish; for this first effort, samples of blue catfish were taken from Nanticoke River.

**Blue Catfish** - Collected invasive blue catfish for continuing research at Salisbury University. This particular study focuses on the fecundity- the reproductive potential of individuals relative to their size. Other blue catfish were collected for additional contaminant/consumption studies.

### **Freshwater Fisheries - Coldwater Program**

Updates to the coldwater database were completed and the new version was circulated for review by staff. The coldwater database stores all biological, habitat, and temperature data collected for coldwater fisheries resource management. The updates will streamline data entry and enhance usage of data collected by Fishing and Boating Services and other monitoring agencies. The coldwater database is an important tool for analysis and management of existing coldwater fisheries resources, identification of coldwater fisheries resources for environmental review and project planning efforts, and preparation of data requests by external organizations and the public.

Met with Environmental Review Program staff to discuss innovative designs for stormwater management practices. The volume of development in coldwater watersheds has necessitated new and improved approaches to stormwater management. Several alternative designs have been identified as possible improvements to the current stormwater management practices that are commonly used in Maryland. Communication with the Maryland Department of the Environment has been initiated to consider the practicality of innovative stormwater management practices and ways to encourage their use.

Presented water quality and blockage removal projects in Wolf Den Run to partner Department of Natural Resources units, the Maryland Park Service and Resource Assessment Service. These projects would improve passage in the stream and address acid mine drainage related water quality issues through in-stream crushed limestone treatments. The expected outcome for these projects is expanded brook trout occupancy in Wolf Den Run. Partners expressed concerns about project challenges, including access to a deteriorated dam that acts as a blockage and potential physical impacts of crushed limestone treatments. Site visits will be scheduled to bring partners out to the target sites for further discussion.

Attended the Eastern Brook Trout Joint Venture Steering Committee quarterly meeting. Updates were provided for brook trout habitat improvement projects that may be funded by the Joint Venture, the current status of the range-wide brook trout occupancy mapping tool, the re-establishment of an education and outreach committee, and general organizational management issues.

### **Freshwater Fisheries - Tidal Bass Program**

Attended hearings in the Maryland House of Delegates and Senate for a bill to enact the Black Bass Conservation Fund.

Posted information on Black Bass Blotchiness and reporting, which is incentivized by a random drawing of submissions by the U.S. Geological Survey.

Attended the Maryland Bass Nation President's Meeting to discuss some current initiatives with black bass in Maryland and field questions or concerns from the directors attending the meeting.

The Black Bass Annual Review (Vol. 15) was completed, posted online, sent to Black Bass Advisory Committee, posted on social media, and emailed to more than 200,000 Maryland licensed black bass anglers.

## **Freshwater Fisheries – Other/Looking Forward**

Staff will conduct a northern pike specific sampling effort on Deep Creek Lake to revisit and assess the lake pike population.

Launched a new Lund utility boat on Deep Creek Lake and conducted proper break-in procedures for its 60 hp Mercury outboard in order to have the vessel ready for spring sampling. The boat will be used to conduct creel surveys, seining surveys, as a fish processing station for electrofishing surveys, and to collect side scan sonar recordings to map impoundment habitat.

Assisted Fisheries Habitat and Ecosystem Program (FHEP) staff with navigating upper Mattawoman Creek, an area familiar to Freshwater staff due to Tidal Bass Program surveys, and used saved tracks on the handheld GPS as a guide to prevent running aground. FHEP appreciated the help and saved tracks on their GPS for their next trips out when they will pull plankton nets for larval fish.

Continued working with our GIS expert to upgrade the GIFS map extractor. Database queries were written to source the table information from Individual Fish and Summary Catch tables that may be needed for the ArcGIS map.